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10/723,058	11/26/2003	Michael Roberts	NECW 20.768	8639

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EXAMINER	
FIGUEROA, MARISOL	
ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/723,058	ROBERTS, MICHAEL	
	Examiner	Art Unit	
	Marisol Figueroa	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 November 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 11/14/2007, with respect to claims 1-8, have been fully considered but they are not persuasive.

The Applicant argues that Laitinen alone and Dahlin alone does not teach the limitations of "determining that a mobile terminal is in a saturated cell, and after the determining operation, and in order to initiate a handover, sending by the network to a mobile terminal a first group of system information via first channel associated with circuit switching services and a second group of system information via a second channel associated with packing switching service" (see page 7, line 4-page 8, lines 1-15 of Applicant's arguments); the examiner respectfully disagrees.

In the previous office action, the examiner rejected claims 1-8 under 35 USC 103(a) as being unpatentable over Laitinen (US 2003/0189912), Dahlin (US 5,749,055), and Kallin (US 5,701,585) and the examiner asserts that the combination of the references teaches the features of "determining that a mobile terminal is in a saturated cell, and after the determining operation, and in order to initiate a handover, sending by the network to a mobile terminal a first group of system information via first channel associated with circuit switching services and a second group of system information via a second channel associated with packing switching service".

For example, Laitinen teaches a mobile terminal receiving a first group of system information and a second group of system information (i.e., neighboring cell information), performing measurements on the neighboring cells, sending the measurements to the network and initiating the procedure of handover according to the measurements (paragraphs [0024],

[0058]-[0060]). And Dahlin teaches wherein a network in order to initiate a handover of mobile terminal that is in a congested cell (i.e., saturated cell) sends the mobile terminal a handoff order identifying the neighboring cells (i.e., system information) that are available for assignment (Fig. 4; col. 11, lines 31-56). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention, to modify Laitinen to include the mobile terminal receiving the system information from the network, in response to a determination that the mobile terminal is in a saturated cell, as suggested by Dahlin, in order for the network to redistribute the traffic level within the congested cell by handing over the mobile terminals to neighboring cells with available capacity (col. 11, lines 45-52).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Furthermore, the Applicant argues that there is no specific suggestion or support to combine the references (page 8, lines 16-23).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one having ordinary skill in the art at the time of the

invention, to modify Laitinen to include the mobile terminal receiving the system information from the network, in response to a determination that the mobile terminal is in a saturated cell, as suggested by Dahlin, in order for the network to redistribute the traffic level within the congested cell by handing over the mobile terminals to neighboring cells with available capacity (col. 11, lines 45-52).

Furthermore, the KSR forecloses the argument that a specific teaching, suggestion, or motivation is required to support a finding of obviousness. See the recent Board decision *Ex parte Smith,* --USPQ2d--, slip op. at 20, (Bd. Pat. App. & Interf. June 25, 2007) (citing *KSR*, 82 USPQ2d at 1396) (available at http://www.uspto.gov/web/offices/dcom/bpai/prec/fd071925.pdf).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over LAITINEN et al. (US 2003/0189912 A1) in views of KALLIN et al. (US 5,701,585) and DAHLIN (US 5,749,055).

Regarding claim 1, Laitinen discloses a method of handover in a multimode mobile telecommunication network (paragraph [0005] lines 1-6), comprising:

sending by the network to a mobile to a mobile terminal a first group of system information via a first channel associated with circuit switching services and a second group of system information via a second channel associated with packet switching services (paragraph

[0025]; a dual-mode MS receives information of 3G neighbor Cell list in a SI2quater message from the BCCH channel and a PSI3quarter message on the PBCCH channel),

c) performing measurement at least in one neighboring cell on a basis of information contained in the second group of system information (paragraphs [0024]-[0026], and [0058] lines 1-10; the mobile station construct a 3G Neighbor Cell list from the received information on the PBCCH and measures the cells contained in the 3G Neighbor Cell list),

d) sending to the network the measurements performed in step c) (paragraph [0058] lines 7-10; the mobile station reports the measurements to the network),

g) initiating the procedure of handover according to the measurements performed (paragraph [0005] lines 1-6 and [0019]; the network commands the MS to perform handover, if necessary, according to the measurements),

wherein the network sends to the mobile terminal the first group of system information via the first channel after the performing measurements step (paragraphs [0006]-[0007], [0011], [0025], and [0058]; when the mobile station transitions from a GPRS dedicated mode to a GSM dedicated mode, the MS immediately make measurements and reports on 3G cells based on packet system information (PSI3) received over the PBCCH (i.e., second channel) while in a GPRS dedicated mode, then while the MS is in GSM dedicated mode, the MS receives system information (SI2) via a BCCH (i.e., first channel) corresponding to a first group of system information).

But, Laitinen does not expressly disclose the features of the network determines that the mobile terminal is in a saturated cell in order to initiate a handoff and send to the mobile terminal the system information (i.e., neighboring cell information), and

the step e) of further performing measurements at least in one further neighboring cell on the basis of the information contained in the second group of system information, and further sending to the network the measurements performed in step e), the further sending operation being performed in a message distinct from the sending step d).

However, Dahlin teaches a network that determines that a mobile terminal is in a saturated cell in order to initiate a handoff and send to the mobile terminal system information (Fig. 4; col. 11, lines 31-55). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify Laitinen to include the features of wherein the network determines that a mobile terminal is in a saturated cell in order to initiate a handoff and send to the mobile terminal system information, as suggested by Dahlin, in order for the network to redistribute the traffic level within the congested cell by handing over the mobile terminals (col. 11, lines 45-52).

And, Kallin teaches a mobile assisted handoff for use in a cellular communication system in which the mobile station receives or is assigned a list of cells and measures the quality level of each assigned cell and regularly reports the measurements (i.e., different measurement reports) to the communication system. A mobile station is only capable of measuring 12 channels and cannot measure all of the neighboring cells at the same time, and since it is more important to guarantee uninterrupted service than temporary capacity improvements, all the neighboring cells should be included in part of the measurement. Furthermore, the mobile station can perform further measurements until a good candidate for handoff is found (col. 1, line 54-col. 2, lines 1-16; col. 3, line 67-col. 4, lines 1-30; col. 5, lines 14-44).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify Laitinen to include the features of performing further measurements at least in one further neighboring cell on the basis of the information contained in the second group of system information and sending the measurements in a distinct message, as suggested by Kallin, because it is conventionally well known that in a mobile assisted handoff (as used in Laitinen) a mobile terminal regularly measure and reports (i.e., distinct messages) the quality level of each of the cells assigned to the mobile terminal in order to find a good candidate for handoff. Furthermore, it would provide the advantage of measuring and considering all the neighboring cells for handoff when the mobile station cannot measure all the neighboring cell at the same time (col. 4, lines 1-30; col. 5, lines 14-44).

Regarding claim 2, the combination of Laitinen, Dahlin, and Kallin disclose the method according to claim 1, in addition Laitinen discloses wherein the measurements in a neighboring cell based on information contained in the first group of system information associated with circuit switching services (paragraph [0005] lines 1-4 and paragraph [0006] lines 10-17; in the GSM dedicated mode, i.e. circuit switched connection, the MS receives system information (SI2), corresponding to a first group of system information, over a BCCH channel).

Regarding claim 3, the combination of Laitinen, Dahlin, and Kallin disclose the method according to claim 2, in addition Laitinen discloses wherein the telecommunication network is a GSM/GPRS network (paragraph [0019]; it is inherent to recognize that the telecommunication network is a GSM/GPRS network since the MS is dual mode GSM/UMTS and compatible with a GPRS network), and wherein the first channel is a BCCH channel and the second channel is a

PBCCH channel (paragraph [0025]; the MS receives a SI2quarter message from a BCCH channel and a PSI3quarter message from a PBCCH channel).

Regarding claim 4, the combination of Laitinen, Dahlin, and Kallin disclose the method according to claim 2, in addition Laitinen discloses wherein the telecommunication network is a UMTS network (paragraph [0019] lines 1-3; it is inherent to recognize that the telecommunication network is also a UMTS network because the MS station is a dual mode terminal compatible with a multimode network, i.e. GSM, GPRS, and UMTS).

Regarding claim 5, Laitinen discloses a mobile terminal used in a multimode mobile telecommunication network (paragraph [0019] lines 1-3), comprising:

means for receiving by the mobile terminal from the network one of a first group of system information sent by the network via a circuit switching channel and a second group of system information sent by the network via a packet switching channel (paragraph [0025]; a dual-mode MS receives information of 3G neighbor Cell list in a SI2quater message from the BCCH channel (i.e., circuit switching channel) and a PSI3quarter message on the PBCCH channel (i.e., packet switched channel)),

means for performing measurements depending in either on a first group of system information sent by the network to the mobile terminal via a circuit switching channel or on a second group of system information sent by the network to the mobile terminal via a packet switching channel (paragraphs [0005]-[0008], and [0058]),

means for performing measurements at least in one neighboring cell on a basis of information contained in the second group of system information, means for sending to the network the measurements performed (Fig. 1- MS 100; paragraphs [0024]-[0026], and [0058]

lines 1-10; the mobile station construct a 3G Neighbor Cell list from the received information on the PBCCH and measures and reports the cells contained in the 3G Neighbor Cell list), and

means for initiating the procedure of handover according to the measurements performed (paragraph [0005] lines 1-6; the network commands the MS to perform handover, if necessary, according to the measurements),

wherein the network is adapted to send to the mobile terminal the first group of system information via the circuit switching channel after the performing measurements operation (paragraphs [0006]-[0007], [0011], [0025], and [0058]; when the mobile station transitions from a GPRS dedicated mode to a GSM dedicated mode, the MS immediately make measurements and reports on 3G cells based on packet system information (PSI3) received over the PBCCH (i.e., packet switching channel) while in a GPRS dedicated mode, then while the MS is in GSM dedicated mode, the MS receives system information (SI2) via a BCCH (i.e., circuit switching channel) corresponding to a first group of system information).

But, Laitinen does not expressly disclose wherein the mobile terminal receives the system information (i.e., neighboring cell information) after a determination by the network that a current cell is saturated requiring a handover in the network; and

further means for performing further measurements at least in one further neighboring cell in the basis of information contained in the second group of system information, and further means for sending to the network the further measurements performed, wherein the further measurements are sent in a message distinct from the sending of the measurements.

However, Dahlin wherein the mobile terminal receives system information (i.e., neighboring cell information) after a determination by the network that a current cell is saturated

requiring a handover in the network (Fig. 4; col. 11, lines 31-55). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify Laitinen to include wherein the mobile terminal receives system information (i.e., neighboring cell information) after a determination by the network that a current cell is saturated requiring a handover in the network, as suggested by Dahlin, in order for the network to indicate the mobile terminal the need for redistribution of the traffic level within the congested cell (col. 11, lines 45-52).

And, Kallin teaches a mobile assisted handoff for use in a cellular communication system in which the mobile station receives or is assigned a list of cells and measures the quality level of each assigned cell and regularly reports the measurements (i.e., different measurement reports) to the communication system. A mobile station is only capable of measuring 12 channels and cannot measure all of the neighboring cells at the same time, and since it is more important to guarantee uninterrupted service than temporary capacity improvements, all the neighboring cells should be included in part of the measurement. Furthermore, the mobile station can perform further measurements until a good candidate for handoff is found (col. 1, line 54-col. 2, lines 1-16; col. 3, line 67-col. 4, lines 1-30; col. 5, lines 14-44). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify Laitinen to include the features of performing further measurements at least in one further neighboring cell on the basis of the information contained in the second group of system information and sending the measurements in a distinct message, as suggested by Kallin, because it is conventionally well known that in a mobile assisted handoff (as used in Laitinen) a mobile terminal regularly measure and reports (i.e., distinct messages) the quality level of each of the cells assigned to the

mobile terminal in order to find a good candidate for handoff. Furthermore, it would provide the advantage of measuring and considering all the neighboring cells for handoff when the mobile station cannot measure all the neighboring cell at the same time (col. 4, lines 1-30; col. 5, lines 14-44).

Regarding claim 6, the combination of Laitinen, Dahlin, and Kallin disclose the method according to claim 1, in addition Laitinen discloses wherein the means for performing measurements step is performed the measurements immediately upon receipt of the second group of system information (paragraph [0058]; the MS immediately perform measurements on system information received over the PBCCH when it enters the GSM dedicated mode).

Regarding claim 7, the combination of Laitinen, Dahlin, and Kallin disclose the mobile terminal according to claim 5, in addition Laitinen discloses wherein the means for performing measurements is adapted to perform the measurements immediately upon receipt of the second group of system information (paragraph [0058]; the MS immediately perform measurements on system information received over the PBCCH when it enters the GSM dedicated mode).

Regarding claim 8, Laitinen discloses a handover method for a mobile terminal in a mobile communication network, comprising:

sending by the network to the mobile terminal packet system information via a packet switching channel, the packet system information including GPRS frequencies for neighboring cells (paragraph [0025]; a dual-mode MS receives information of 3G neighbor Cell list (i.e., GPRS cells) in a PSI3quarter message on the PBCCH channel (i.e., packet switched channel));

performing measurements by the mobile terminal, based on the packet system information, in a first neighboring cell (paragraphs [0024]-[0026], and [0058] lines 1-10; the

mobile station construct a 3G Neighbor Cell list from the received information on the PBCCH and measures the cells contained in the 3G Neighbor Cell list (i.e., GPRS cell));

sending to the network a result of the measurements performed on the first neighboring cell (paragraph [0058] lines 7-10; the mobile station reports the measurements to the network);

initiating a handover according to the result of the measurements (paragraph [0005] lines 1-6 and [0019]; the network commands the MS to perform handover, if necessary, according to the measurements); and

after the step of performing measurements by the mobile terminal, the network sends to the mobile terminal circuit system information via a circuit switching channel, the circuit system information including GSM frequencies for neighboring cells (paragraphs [0006]-[0007], [0011], [0025], and [0058]; when the mobile station transitions from a GPRS dedicated mode to a GSM dedicated mode, the MS immediately make measurements and reports on 3G cells based on packet system information (PSI3) received over the PBCCH (i.e., packet switched channel) while in a GPRS dedicated mode, then while the MS is in GSM dedicated mode, the MS receives system information (SI2) via a BCCH (i.e., circuit switched channel) corresponding to a first group of system information).

But, Laitinen does not particularly disclose that the network sends the system information (i.e., neighboring cell information) to the mobile terminal in response to a determination that the mobile terminal is in a saturated cell, and the step of further performing further measurements by the mobile terminal, based on the packet system information in at least one further neighboring cell; further sending to the network a further result of the further measurements performed on the

at least one further neighboring cell, the further sending being performed in a message distinct from the step of sending to the network the result of the measurements.

However, Dahlin teaches a network that determines that a mobile terminal is in a saturated cell and sends in response, system information to the terminal in order to initiate handoff (Fig. 4; col. 11, lines 31-55). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify Laitinen to include the features of wherein the network determines that a mobile terminal and in response sends to the mobile terminal system information to the mobile terminal, as suggested by Dahlin, in order for the network to redistribute the traffic level within the congested cell by handing over the mobile terminals (col. 11, lines 45-52).

And, Kallin teaches a mobile assisted handoff for use in a cellular communication system in which the mobile station receives or is assigned a list of cells and measures the quality level of each assigned cell and regularly reports the measurements (i.e., different measurement reports) to the communication system. A mobile station is only capable of measuring 12 channels and cannot measure all of the neighboring cells at the same time, and since it is more important to guarantee uninterrupted service than temporary capacity improvements, all the neighboring cells should be included in part of the measurement. Furthermore, the mobile station can perform further measurements until a good candidate for handoff is found (col. 1, line 54-col. 2, lines 1-16; col. 3, line 67-col. 4, lines 1-30; col. 5, lines 14-44). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify Laitinen to include the features of performing further measurements in at least one further neighboring cell and sending the measurements in a distinct message, as suggested by Kallin, because it is

conventionally well known that in a mobile assisted handoff (as used in Laitinen) a mobile terminal regularly measure and reports (i.e., distinct messages) the quality level of each of the cells assigned to the mobile terminal in order to find a good candidate for handoff. Furthermore, it would provide the advantage of measuring and considering all the neighboring cells for handoff when the mobile station cannot measure all the neighboring cell at the same time (col. 4, lines 1-30; col. 5, lines 14-44).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marisol Figueroa whose telephone number is (571) 272-7840. The examiner can normally be reached on Monday Thru Friday 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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